

ABSTRACT OF THE DISCLOSURE

In drying a coating liquid such as a resist applied to a substrate under reduced pressure, a coating film in a peripheral portion tends to lose good shape regardless of duration of a drying period, and it is difficult to set an appropriate exhaust flow rate. After the substrate is loaded in an airtight container, a pressure is reduced from atmospheric pressure to a pressure slightly higher than the vapor pressure of a solvent, for example. Then, the solvent actively evaporates from the coating liquid. Here, evacuation is performed initially based on a first flow rate set value Q1, and thereafter, it is performed based on a second flow rate set value larger than Q1. Rounding of the surface in the peripheral portion is corrected by evacuation based on Q1, and more active evaporation of a solvent component is attained by switching to Q2.